YEAR 1854

Tannehill (1938) has listed four storms for the year 1854 and no author has provided additional cases which were not listed by Tannehill (1938). The author of this study has recently found an additional case, making five the total of known storms for 1854. This case represents, of course, an increase of the known cases by 25 percent.

Storm 1, 1854 (Aug. 23).

This is the storm case recently found by the author of the present study. The case is based on information published in The New-York Daily Times: Ship "Highflyer", coming to New York from Liverpool, passed a schooner understood her name to be "Osceola" at lat. 33.8 N., long. 57.5 W. at 7 P.M. August 23. It had been blowing a very violent gale from the north the forepart of that day, with tremendous seas (The New-York Daily Times, Aug. 30, 1854, p.8, col.6). The above description allowed one to place Storm 1, 1854 near lat. 33 degrees N., long. 55 degrees W. at 7 A.M. August 23 (Fig. 5). No further information has been found about the storm and, therefore, no attempt has been made to present a track for it. Storm 1, 1854 was probably moving northward on August 23 and it is possible, but very far from being conclusive, that the severe gale from the W.N.W to N.W. the bark "Pilgrim" experienced at lat. 48.5 N., long. 35 W. on August 27 (The New-York Daily Times, Sept. 24, 1854, p.8, col.6) might have been associated with an extratropical stage of Storm 1, 1854.

Storm 2, 1854 (Sept. 7-12).

Tannehill (1938) has listed this storm and Garriott (1900), Dunn and Miller (1960) and Ludlum (1963) have also mentioned it. Storm 2, 1854 undoubtedly attained hurricane intensity. Based upon information from different sources, the author of this study has produced the track shown in Fig. 5.

According to Ludlum (1963), the brig "Reindeer" encountered the hurricane 60 miles N.W. of Abaco in the Bahamas on Sept. 7. The gale commenced from the N.E. and veered to S.E. in the morning and the barometer then read 27.70 inches. This low pressure revealed that Storm 2, 1854 was a severe hurricane at that time. The bark "Julia Dean" also met the storm on the same day and reported a N.N.W. gale at lat. 28 N., long. 79 30 W. (The New-York Daily Times, Sept. 16, 1854, p.8, col.3 and 4). The information supplied by the "Reindeer" and the "Julia Dean" was crucial to begin the track for Storm 2, 1854 (Fig. 5).

According to Ludlum (1963), the gale at St. Simons Island and at St. Augustine backed from N.E. to N.W. in the afternoon of Sept. 8. At St. Simons Island, the lowest barometer occurred at 4 P.M. with the wind blowing from the W.S.W., and a S.W. wind was reported at 10 P.M. The Smithsonian observer at Whitemarsh Island, near Savannah, estimated the maximum wind at 90 miles per hour from the E.S.E. at 4 P.M. Sept. 8 and reported a minimum pressure of 28.74 inches at the same time. On the other hand, Garriott (1900) has indicated that the lowest pressure at Savannah was 29.04 inches. It is obvious from the 4 P.M. wind and pressure reports from Whitemarsh Island and St. Simons Island that the storm was then making landfall on the northeastern Georgia coast.

The wind at Charleston was from the E. at 2 P.M. Sept.8, from the S.E. at 8 P.M. and it blew from the S.E. all the night of Sep. 8-9, abating slowly. At Columbia, S.C., the wind blew from the S.E. on Sept. 9 and from the S. late on Sept. 9, and the minimum pressure (uncorrected) was 28.96 inches at 4 P.M. At Camden, the wind was S.E. on Sept. 9 but it shifted to S.W. at 4 P.M. and the minimum pressure was 29.47 inches. The above information, which has been extracted from Ludlum (1963), clearly reveals that Storm 2, 1854 traversed the state of South Carolina from a point about 100 miles west of Charleston to the border with North Carolina during the daylight hours of Sept. 9.

Indications are that a cold front reached the New York area late on September 9. According to The New-York Daily Times, Sept. 12, 1854, p.2, col.6, the maximum temperature at Brooklyn Heights was 93 degrees Fahrenheit on September 9 and then cooled off and came down to 48 degrees Fahrenheit in the morning of September 11. Rain started falling at 7 P.M. Sept. 9 and lasted till noon Sept. 10, and a gale was blowing the whole day of September 10. However, some gales had been affecting vessels off the northeastern U.S. coast the evening before: The brig "Sarah", off Montauk Point, had a N.E. gale at 6 P.M. Sept. 9 (The New-York Daily Times, Sept. 14, 1854, p.8, col.6) and the ship "Queen Victoria", off East Hampton, experienced a violent N.E. gale in the evening of Sept. 9 (The New- York Daily Times, Sept. 13, 1854, p.8, col.5). The above mentioned gales appear to be related to the cold front rather than to Storm 2, 1854 which had then moved from South Carolina to North Carolina. The only marine report directly related to Storm 2, 1854 on Sept. 9 appears to be the S.W. gale reported by the bark "J.W. Boldget" at lat. 33 N., long. 76 W. (The New-York Daily Times, Sept. 19, 1854, p.8, col.5).

The author's track has Storm 2, 1854 emerging from North Carolina to the Atlantic Ocean very early in the morning of Sep. 10 and about 100 miles to the northeast of Cape Hatteras by daybreak. This east-northeastward motion was undoubtedly in response to westerly winds aloft associated with the winter-type conditions which had started invading the northeastern states. The author believes that the gales in the New York area on Sept. 10, as well as those reported by ships offshore on the same day, were related to the strong pressure gradient between Storm 2, 1854 and the high pressure area building to the north rather than to the core of the storm itself. Four vessels are known to have had strong gales on Sept. 10: l) Schr. "Marietta", lat. 39 45 N., long. 72 30 W., had a heavy N.E. gale on Sept. 10 (The New-York Daily Times, Sept. 14, 1854, p.8, col.6). 2) Bark "Brilliant", lat. 41 N., long. 67 W., had a very severe gale from N.E. on Sept. 10 (The New-York Daily Times, Sept. 15, 1854, p.8, col.5 and 6). 3) Bark "Tom Corwin", lat. 39 10 N., long. 74 W., experienced a severe gale from N.E. to N. on Sept 10 (The New-York Daily Times, Sept. 15, 1854, p.8, col.5 and 6). 4) Schr. "Ann" had a violent E.N.E. gale at the northern edge of the Gulf Stream on Sept. 10 (The New-York Daily Times, Sept. 15, 1854, p.8, col.5 and 6). Note that no shifting winds were indicated in the above reports, which means that the vessels were not in the vicinity of the storm core but well to the north of it.

Other vessel reports during the night of Sept. 10-11 and during Sept. 11 are: 1) Ship "Oliver Putman", lat. 40 39 N., long. 69 W., midnight Sept. 10, heavy gale from E.N.E. to E.S.E. (The New-York Daily Times, Sept. 16, 1854, p.8, col.3 and 4). 2) Ship "Chimborazo", coming to New York from Liverpool (no position given). Encountered a violent E.S.E. to E.N.E. gale in the evening of Sept. 10 and morning of Sept. 11 (The New-York Daily Times, Sept. 13, 1854, p.8,

col.6). 3) Bark "Llewelyn". lat. 39 30 N., long. 67 W., Sept. 11, experienced a severe hurricane from S.E. to N. lasting for 7 hours (The New-York Daily Times, Sept. 15, 1854, p.8, col.5 and 6). 4) Bark "Harvest", lat. 40 20 N., long. 68 30 W., Sept. 11, hurricane from E.N.E. with lightning and thunder (The New-York Daily Times, Sept. 18, 1854, p.8, col.2). 5) Ship "Helena Thompson", 8 A.M. Sept. 11, lat. 38 N., long. 64 20 W., met the gale which caused damages on board; the ship returned to port (The New-York Daily Times, Sept. 18, 1854, p.1, col.6). The information provided by the "Helena Thompson" was particularly useful bacause it allowed the author to place the storm in the vicinity of 38.5 degrees North, 65 degrees West at 7 A.M. Sept. 11.

According to the author's track (Fig. 5), Storm 2, 1854 did not reach the 40 degrees N. parallel until early Sept. 12. The ship "Trenton", lat. 39 N., long. 45 W., had a hurricane from S.W. to N.W. on Sept. 12 (The New-York Daily Times, Sept. 30, 1854, p.8, col.6). The above report allowed one to determine that the storm was moving straight eastward on that day. In view that no further reports were found near the storm after Sept. 12, 1854, its track was terminated on that day. The eastward motion of Storm 2, 1854 on Sept. 12 was undoubtedly due to an extremely severe mid-latitude storm which The New-York Daily Times, Sept. 20, 1854, p.1, col.2, has mentioned to have occurred near lat. 52 N., long. 38 W. over the period Sept. 10-13. The ship "Atlantic" reported a pressure as low as 28.25 inches near the center of this storm. It is very likely that this powerful mid-latitude weather system had absorbed Storm 2, 1854 after September 12.

Storm 3, 1854 (Sept. 18-19).

This storm has been listed by Tannehill (1938) and Dunn and Miller (1960) and Ludlum (1963) have also mentioned it. According to these authors, the storm occurred at "Matagorda", "from Galveston southward" and in "central Texas", respectively. Tannehill (1938) has indicated Sept. 16-19 for the days the storm lasted while Dunn and Miller (1960) and Ludlum (1963) have mentioned shorter periods for the storm's life. The author of this study has found enough information to track the storm over the period Sept. 18-19. Fig. 5 shows the Sept. 18-19 track.

Practically all information about this storm was extracted from Ludlum (1963) who, in turn, has acknowledged that he had used a special study of this hurricane prepared by Lorin Blodget, a climatology specialist, as a very helpful source. From Blodget's work, Ludlum (1963) took the following observations which were taken at Brazoria, a town located just inland from where Freeport (Texas) is at the present time: 17th, violent N. wind in the evening; 18th, still more violent wind blew the entire day accompanied by heavy rain, the wind changed to N.E.; 19th, violent wind and rain from S.E. to S.

According to Ludlum (1963), the main impact of the hurricane was at Matagorda and Lavaca Bays: Mr. Poole, purser of the steamship "Louisiana", stated that the gale visited Matagorda with unparalleled fury, destroying all the buildings in the place; he also stated that several vessels were wrecked there.

It is known from Blodget's work (Ludlum, 1963) that the following observations were taken at Columbus, a town located 70 miles west of Houston: 17th, violent wind with E. wind in the evening; 18th, increasing wind; 19th, gale from E. in the morning, then calm, then S. a gale, then

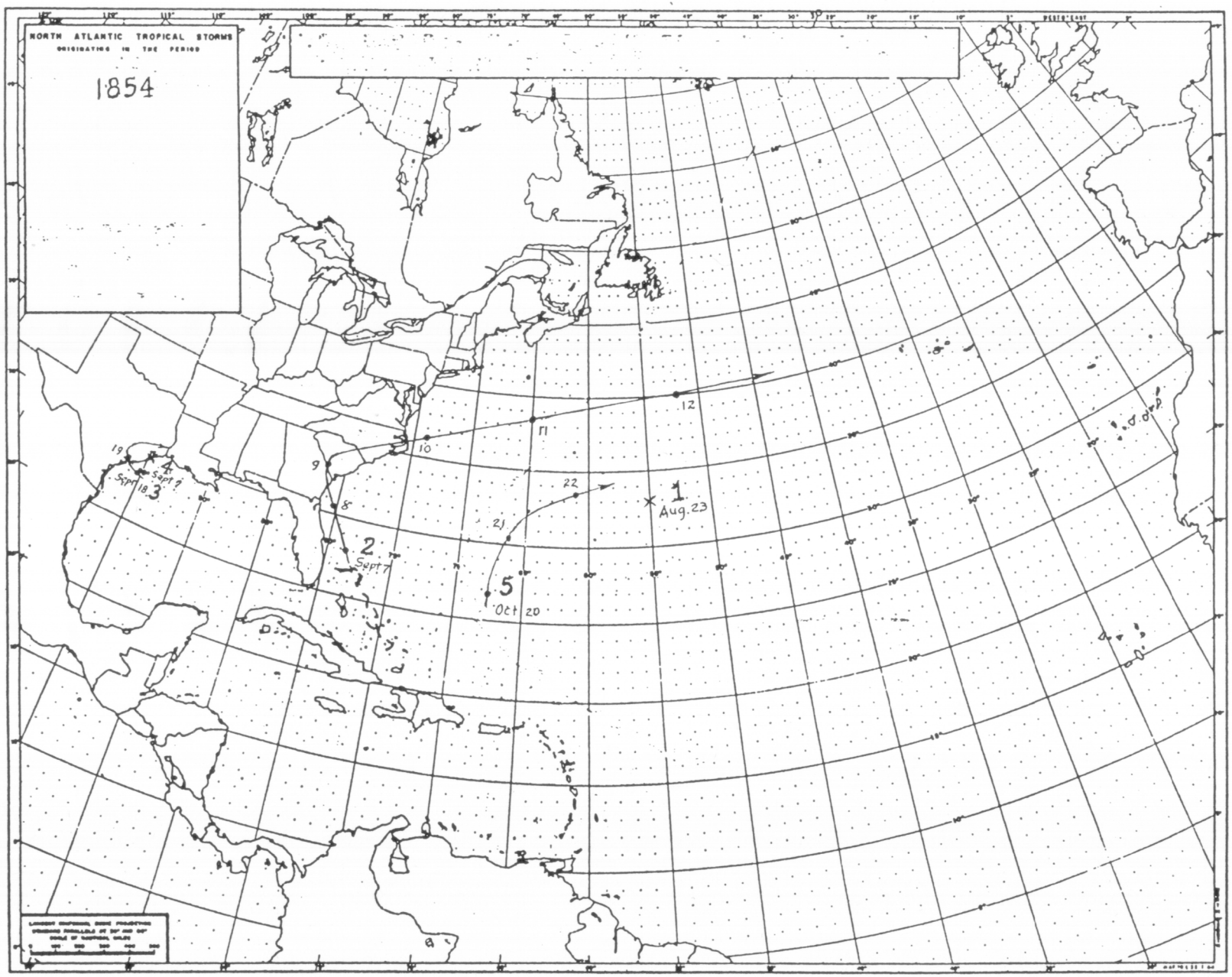
NORTH ATLANTIC TROPICAL STORMS
ORIGINATING IN THE PERIOD
1854
1
Aug. 23
2
Sept 7
3
Sept 18
4
Sept 9
5
Oct 20
9
10
11
12
19
21
22

Fig. 5

W. and finally N. where it blew severely. Storm 3, 1854 produced heavy rain as it dissipated over the Gulf states (Ludlum, 1963).

Storm 4, 1854 (Sept. ?).

Tannehill (1938) is the only author who has mentioned this storm as having occurred at Galveston in September 1854. However, he has stated that this storm was probably the same above (Storm 3, 1854). The author of this study agrees with Tannehill's statement but has not been able to prove that Storm 3, 1854 and Storm 4, 1854 are just one: Violent gales at Galveston associated with Storm 3, 1854 (Ludlum, 1963) do not preclude the possibility of a second storm there during the same month. Therefore, he has decided to retain Storm 4, 1854 and to place it near Galveston in September 1854 (Fig. 5).

Storm 5, 1854 (Oct. 20-22).

Tannehill (1938) and Garriott (1900) have mentioned this storm as having occurred at Bermuda on Sept. 21, 1854. The author of this study has prepared the track for Storm 5, 1854 which is shown in Fig. 5. This track is based on the following information taken from newspapers: 1) Bark "Southerney" experienced a very heavy gale from N.E. to N. at lat. 29 N., long. 69 W. on Oct. 20-21 (The New-York Daily Times, Nov. 20, 1854, p.8, col.5). 2) Bark "White Cloud" had a tremendous, heavy gale from N.E. at lat. 36 10 N., long. 71 20 W. on Oct. 22 (The New-York Daily Times, Oct. 31, 1854, p.8, col.5). 3) Brig "Archimedes" experienced a gale from the N. at lat. 33 N., long. 64 W. on Oct. 22-23. The brig was sailing from Gonaives (Haiti) to Bremen, it suffered damages during the gale and it put into New York in distress (The New-York Daily Times, Oct. 31, 1854, p.8, col.5). The author has not found any storm information from Bermuda but, in order to conform with what Tannehill (1938) and Garriott (1900) have stated, he has made Storm 5, 1854 to pass near that island on October 21.